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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,778	08/30/2001	Anders Linge	29206-00042	1803

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EXAMINER

LEE, JOHN J

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,778

Applicant(s)

LINGE, ANDERS

Examiner

JOHN J LEE

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1 – 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kintz et al. (US Patent number 6,275,714) in view of Heikkinen et al. (US Patent number 6,073,036).

Regarding **claim 1**, Kintz discloses that a portable communications device (Fig. 3) having a first microdisplay (12 in Fig. 3), virtual image display, and a second at least partially transmissive display (19 in Fig. 3) (column 3, lines 60 – column 4, lines 56, Fig. 3, 10, and column 6, lines 30 – column 7, lines 4, where teaches mobile phone attached the a virtual image display which provides a displayed image (LCD) (19) and virtual image display (12)).

Kintz does not specifically disclose the limitation “mobile device has a second display in front of the first microdisplay”. However, Heikkinen discloses the limitation “mobile device has a second display in front of the first microdisplay” (Fig. 1, 3 and column 8, lines 8 – 39, where teaches the virtual display/screen, generating a projection display, and miniaturized display uses a two dimensional array of GaAs light emitting pn junctions). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Kintz system as taught by Heikkinen. The

motivation do so would be to achieve an efficient virtual image displays within mobile station for allowing users to view documents and graphics.

Regarding **claims 2, 15, and 23**, Kintz discloses that the second display and the screen of said microdisplay are inclined to one another (Fig. 10 and column 6, lines 30 – column 7, lines 4).

Regarding **claims 3, 16, and 24**, Kintz discloses that the second display and the screen of said microdisplay are disposed substantially perpendicular to one another (Fig. 10 and column 6, lines 12 – column 7, lines 4).

Regarding **claim 4**, Kintz discloses that the second display and the first microdisplay may be operated independently (column 3, lines 60 – column 4, lines 56, Fig. 3, 10, and column 6, lines 30 – column 7, lines 4).

Regarding **claim 5**, Kintz discloses that the microdisplay can serve as a backlight for said second display (Fig. 11 and column 7, lines 5 – 57).

Regarding **claim 6**, Kintz discloses that the second display may be made substantially transparent when not in use (Fig. 3 and column 3, lines 43 – column 4, lines 39).

Regarding **claim 7**, Kintz discloses that the second display is a transfective display (Fig. 10 and column 6, lines 12 – column 7, lines 4).

Regarding **claim 8**, Kintz discloses that the transfective display is a transfective liquid crystal display (LCD) (Fig. 10, 11 and column 6, lines 12 – column 7, lines 57).

Regarding **claims 9 and 18**, Kintz discloses that the portable communications device is a radiotelephone (Fig. 1 and column 3, lines 16 – 34).

Regarding **claims 10, 19, and 26**, Kintz discloses that status information and memoranda may be displayed on said second display (Fig. 9 and column 6, lines 25 – column 7, lines 45).

Regarding **claims 11, 20, and 27**, Kintz discloses that high-resolution graphics may be displayed on said microdisplay (column 7, lines 31 – column 8, lines 20 and Fig. 11).

Regarding **claims 12, 21, and 28**, Kintz discloses that motion video may be displayed on said microdisplay (Fig. 10, 11 and column 6, lines 12 – column 7, lines 57).

Regarding **claim 13**, Kintz and Heikkinen disclose all the limitation, as discussed in claim 1. Furthermore, Kintz further discloses that the first microdisplay (virtual image display (12)) being viewable through the second display (viewable through the displaying LCD (19), Fig. 10), and the device being operable in a first display mode (column 6, lines 30 – column 7, lines 4, where teaches microdisplay mode for displaying virtual images), in which the second display (LCD, displaying device) is activated (column 3, lines 60 – column 4, lines 56, Fig. 3, 10, and column 6, lines 30 – column 7, lines 4). Kintz teaches that the first microdisplay inactive, and a second display mode, in which the microdisplay is activated, and the second display rendered transparent (Fig. 10, 11, column 7, lines 46 – column 8, lines 20, and column 4, lines 16 – 25).

Regarding **claim 14**, Kintz discloses that the second display is a transfective liquid crystal display (LCD) (Fig. 10, 11 and column 6, lines 12 – column 7, lines 57).

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Regarding **claims 17 and 25**, Kintz discloses that operable in a third display mode, in which the second display is activated and the first microdisplay used as a backlight for said second display (Fig. 11 and column 7, lines 5 – 57).

Regarding **claim 22**, Kintz and Heikkinen disclose all the limitation, as discussed in claims 1 and 13. Furthermore, Kintz further discloses that a signal from a microprocessor and operating a display in a first mode (Fig. 9 and column 6, lines 25 – column 7, lines 45).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kieinschmidt et al. (US Patent number 6,085,112) discloses Communication Device.

Reitmaa et al. (US Patent number 6,424,843) discloses Multi-Function Telecommunication Device.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
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or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT").

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is **(703) 306-5936**. He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay Aung Maung**, can be reached on **(703) 308-7745**. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

J.L.
April 7, 2004



John J Lee

Prim

NICK CORSARO
PATENT EXAMINER